

**QUARTERLY FOCUS: 2003 YEAR IN REVIEW****Table 1**

<b>C YEAR AT A GLANCE C</b>		
<b><u>TOTAL IMPORTS</u></b>		
<b><u>COUNTRY OF ORIGIN</u></b>	<b><u>BCF</u></b>	<b><u>WEIGHTED AVG. PRICE (\$/MMBtu)</u></b>
Canada	3499.4	\$5.13
Mexico	0.0	\$0.00
Algeria	53.4	\$4.88 *
Malaysia	2.7	\$4.53 *
Nigeria	50.1	\$4.20 *
Oman	8.6	\$3.61 *
Qatar	13.6	\$4.43 *
Trinidad and Tobago	378.1	\$4.51 *
<b>TOTAL</b>	<b>4005.9</b>	
<b><u>TOTAL EXPORTS</u></b>		
<b><u>COUNTRY OF DESTINATION</u></b>	<b><u>BCF</u></b>	<b><u>WEIGHTED AVG. PRICE (\$/MMBtu)</u></b>
Japan	64.4	\$4.43 **
Canada	294.3	\$5.93
Mexico	333.2	\$5.36
<b>TOTAL</b>	<b>691.9</b>	
* Landed price. ** Delivered price.		

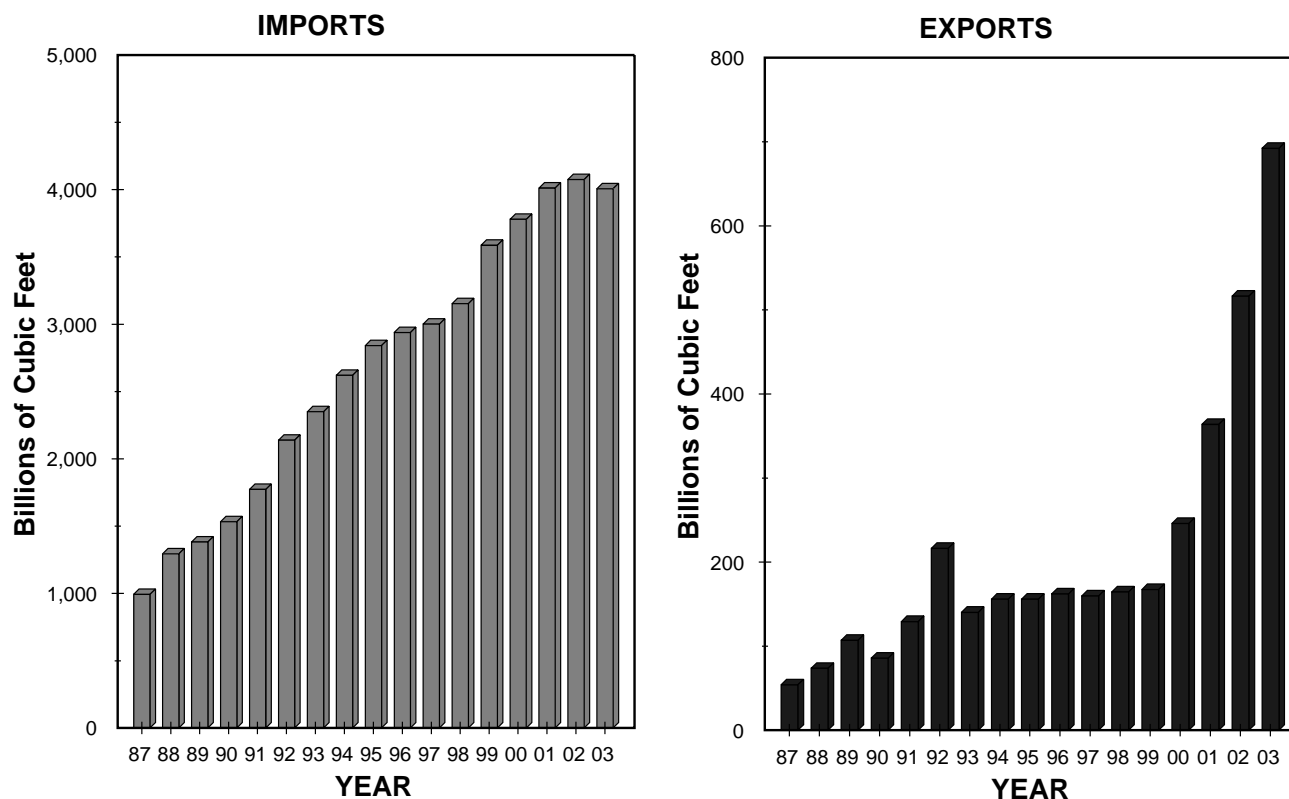
! **Table 1** shows the volumes and prices of natural gas imports by country of origin, and natural gas exports by country of destination for 2003. The weighted average price for imports is the per unit price (MMBtu) at the point of entry into the United States. The price shown for exports is at the point of exit, with the exception of sales to Japan. The price for exports to Japan is shown as a delivered price.

! Natural gas imports fell this year, after reaching an historic high for fifteen consecutive years. The United States imported 4,005.9 Bcf and exported 691.9 Bcf of natural gas, resulting in **net** imports of 3,314 Bcf for the year. Net imports fell 6.9 percent this year compared to 2002 (3,560.5) due to a 9 percent decline in imports from Canada.

! In 2003, natural gas exports increased by 175.7 Bcf, or 34 percent from the 2002 level (691.9 v. 516.2 Bcf). Exports to Mexico increased 26.5 percent and exports to Canada rose over 55 percent. Exports to Japan rose 1.6 percent (64.4 v. 63.4).

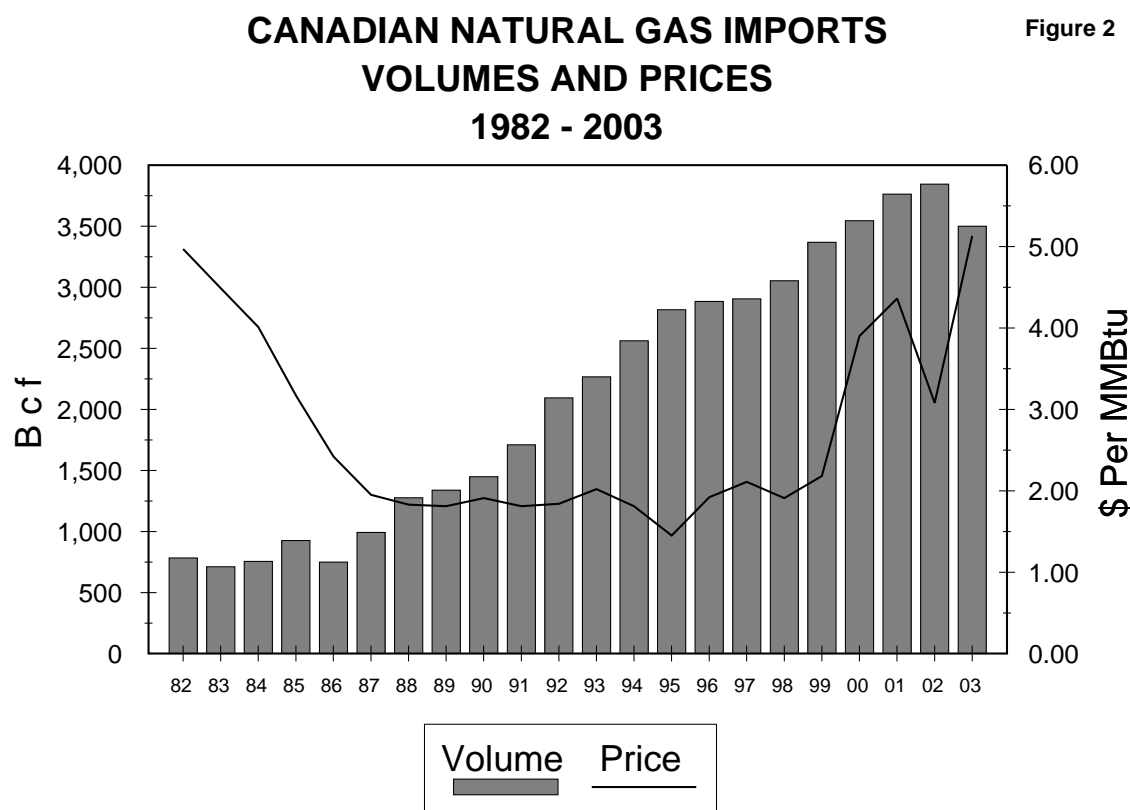
## Natural Gas Import and Export Activity 1987 - 2003

Figure 1



- ! **Figure 1** shows natural gas import and export activity over the past 17 years (1987-2003).
- ! From 1987 to 2002, gross imports grew by 310 percent (993 Bcf v. 4,076.7 Bcf). In 2003, total gross imports into the U.S. fell by 69 Bcf, or 1.7 percent over last year's level (4,006 Bcf v. 4,077 Bcf in 2002). A substantial gain in LNG import volumes this year (an increase of 278 Bcf, or 121 percent) was offset by a 9 percent drop in imports from Canada, particularly to markets in California and the Pacific Northwest.
- ! Total exports this year reached 691.9 Bcf, a record high. During 2003, about 48 percent of the volumes (333.2 Bcf) were exported to Mexico, 43 percent of the volumes (294.3 Bcf) were exported to Canada, and 9 percent (64.4 Bcf) of the gas exports were shipped to Japan.

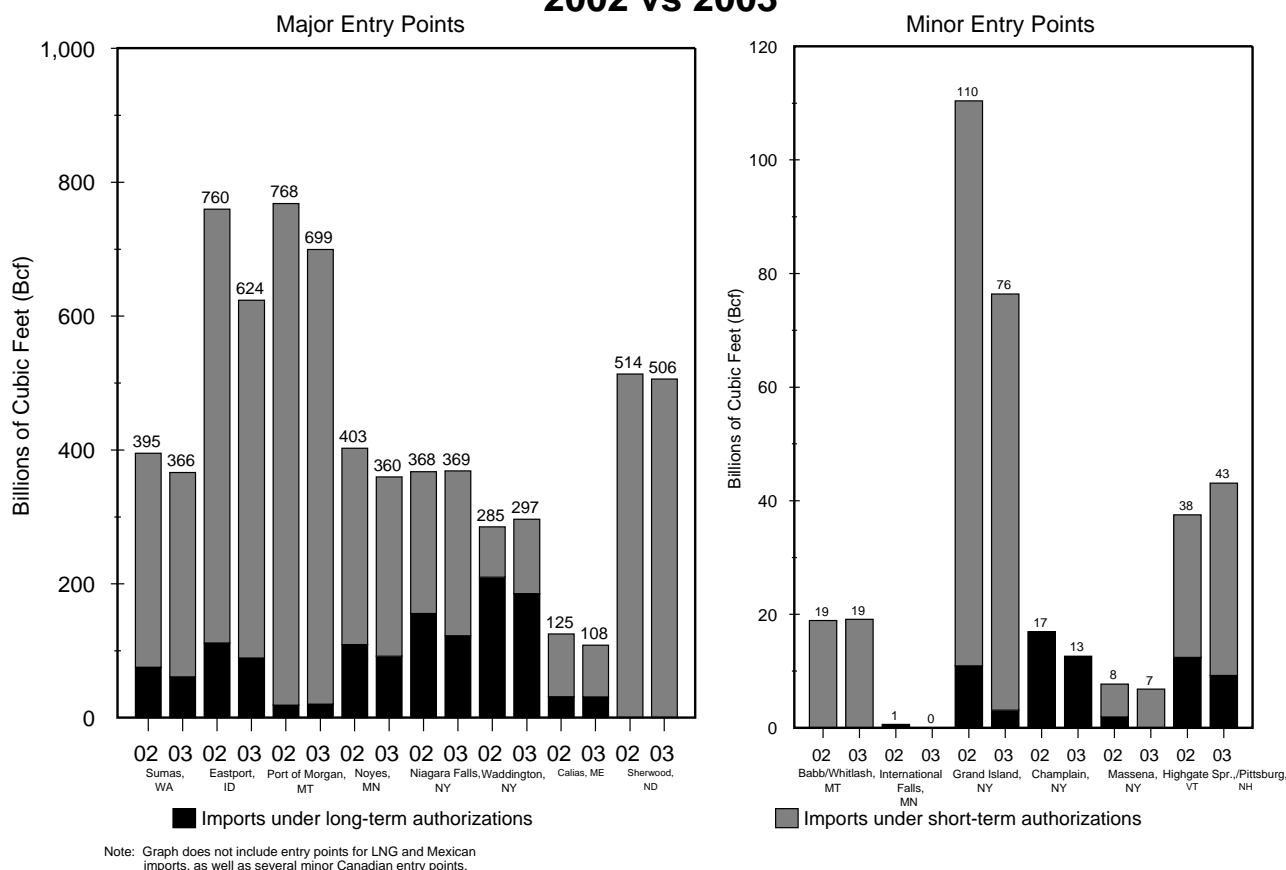
## UNITED STATES - CANADA TRADE



- ! **Figure 2** shows the volume and price trend for Canadian natural gas imports during the past 22 years.
  
- ! In 2003, Canadian natural gas imports fell by 346.9 Bcf, resulting in a 9 percent decline from the 2002 level of 3,846 Bcf. The average international border price for Canadian gas supplies in 2003 was \$5.13 per MMBtu, the highest price on record. The price for natural gas imports from Canada this year was almost 67 percent higher than last year's average price of \$3.08 per MMBtu.
  
- ! The increase in price for gas supplies during 2003 has resulted in a significant increase in revenues for Canadian gas producers. In 2003, it is estimated that Canadian gas revenues were \$17.9 billion, compared to an estimated \$11.8 billion in 2002.
  
- ! The average price of gas imported from Canada in 2003 was \$4.81 per MMBtu under long-term contracts (supply contracts longer than 2 years) and \$5.20 per MMBtu under short-term contracts (supply contracts of 2 years or less).
  
- ! During 2003, Canada's share of the natural gas import market in the United States was 87.4 percent. LNG imports from Algeria, Malaysia, Nigeria, Oman, Qatar, and Trinidad and Tobago represented about 12.6 percent of the import market, up from 5.6 percent last year. There were no imports from Mexico this year.

## Canadian Natural Gas Imports By Point of Entry 2002 vs 2003

Figure 3

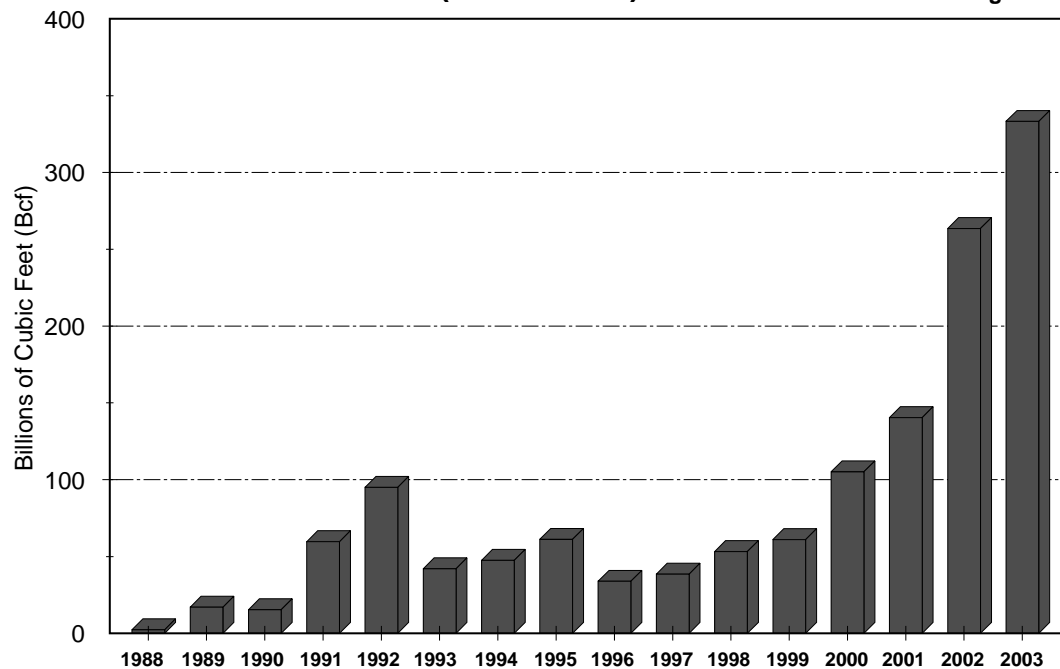


- ! **Figure 3** compares natural gas imports from Canada by point of entry for 2002 and 2003 and distinguishes between imports made under short-term and long-term import authorizations.
- ! **Figure 3** shows decreased activity at several of the major import points this year. During 2003, the international border points of Eastport, Idaho, and Port of Morgan, Montana, had the largest decline in volumes. Imports at these points fell 18 and 9 percent, respectively. A decrease in activity was also seen at Sumas, Washington (down 8 percent); Noyes, Minnesota (down 11 percent); Calais, Maine (down 14 percent); and Sherwood, North Dakota (down 10 percent). Imports at Waddington, New York, rose about 4 percent this year and volumes at Niagara Falls, New York, remained constant.
- ! Natural gas imports at the minor entry points on the U.S.- Canada international border mainly showed declines or remained constant in 2003 compared to the previous year. The largest decrease was seen at Grand Island, New York, where Canadian imports fell by almost 31 percent due to decreased sales to the mid-Atlantic region (primarily New York State). Imports at the Champlain, New York, point fell by almost 24 percent this year due to a drop in long-term contract activity. Imports at the Highgate Springs/Pittsburg entry points this year rose 13 percent.

## UNITED STATES - MEXICO TRADE

### Natural Gas Exports To Mexico (1988 - 2003)

Figure 4

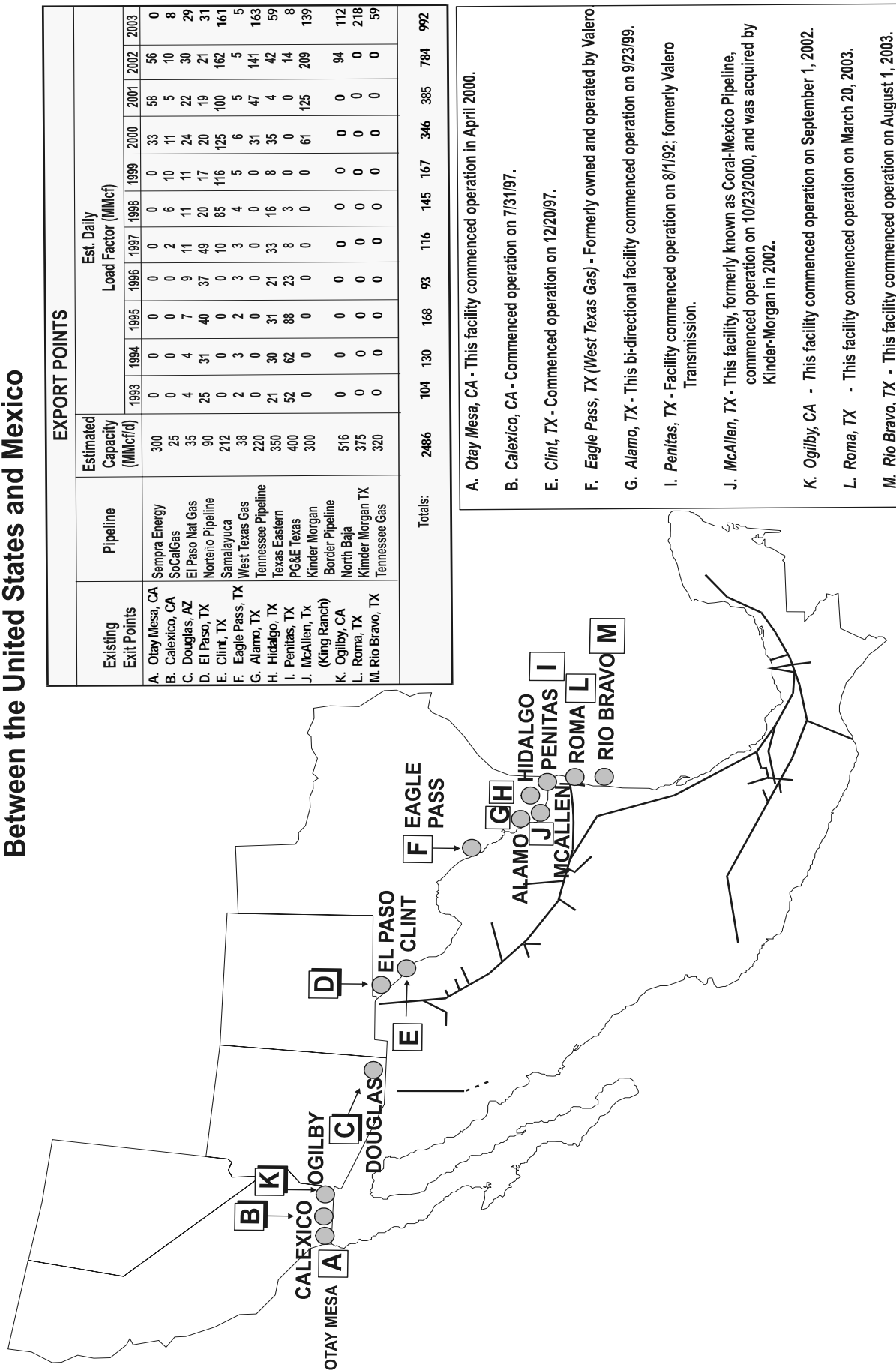


### Natural Gas Exports to Mexico by Point of Exit (Bcf)

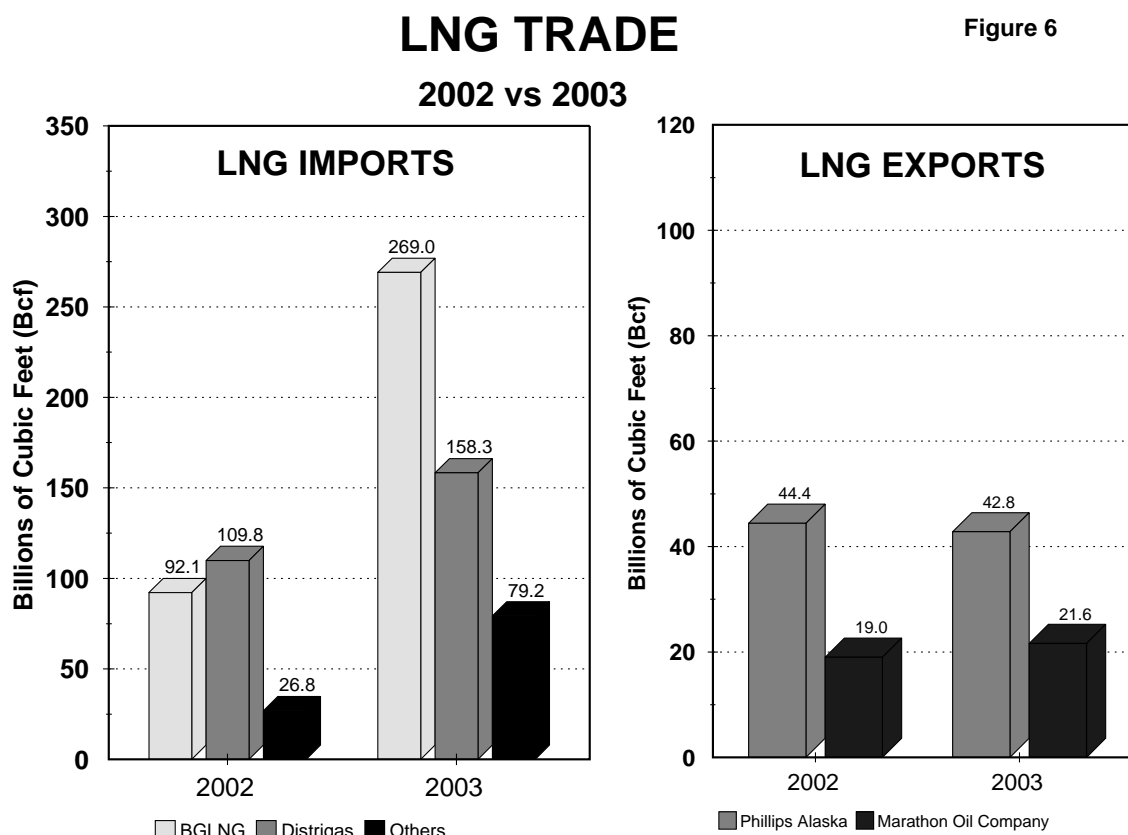
	'88	'89	'90	'91	'92	'93	'94	'95	'96	'97	'98	'99	'00	'01	'02	'03
Alamo, TX	-	-	-	-	-	-	-	-	-	-	-	-	11.3	17.0	51.4	59.4
Calexico, CA	-	-	-	-	-	-	-	-	-	.3	2.1	3.7	3.9	1.7	3.6	2.8
Clint, TX	-	-	-	-	-	-	-	-	-	.1	30.9	42.4	45.5	36.5	59.2	58.9
Douglas, AZ	1.9	1.5	1.7	1.5	1.7	1.4	1.6	2.5	3.4	3.9	4.1	4.0	8.8	8.0	10.9	10.6
Eagle Pass, TX	.4	.5	.3	.7	.6	5.1	1.0	.7	.9	1.3	1.5	2.0	2.1	1.9	1.9	2.0
El Paso, TX	-	-	-	.8	16.4	9.3	11.3	14.6	13.4	17.8	7.4	6.1	7.5	6.8	7.6	11.5
Hidalgo, TX	-	15.0	13.3	56.6	53.7	7.8	11.0	11.5	7.6	12.0	6.0	2.8	12.6	1.4	15.3	21.5
McAllen, TX	-	-	-	-	-	-	-	-	-	-	-	-	4.3	45.5	76.3	50.9
Ogilby, CA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.5	40.8
Otay Mesa, CA	-	-	-	-	-	-	-	-	-	-	-	-	9.1	21.3	20.3	0.1
Penitas, TX	-	-	-	-	22.6	18.4	22.6	32.0	8.5	3.0	1.2	-	-	-	5.1	3.0
Rio Bravo, TX																9.0
Roma, TX																62.6
Total Exports	2.3	17.0	15.3	59.6	95.0	42.0	47.5	61.3	33.8	38.5	53.2	61.3	105.5	140.4	263.5	333.2

- ! During 2003, 333.2 Bcf of natural gas was exported to Mexico. This represents the highest level of natural gas exports to Mexico on record. As shown in **Figure 4**, the gas was exported at twelve interconnects along the U.S.-Mexico border. Approximately 20 percent of the year's exports to Mexico occurred at the Roma, Texas, border point on Kinder Morgan's Mier-Monterrey Pipeline, which became operational earlier this year. In addition, 18 percent was exported on the Samalayuca Pipeline, located near Clint, Texas, and 18 percent was exported at Alamo, Texas, on Tennessee Gas Pipeline's system. Exports at McAllen, Texas, and Ogilby, California, represented 15 and 12 percent, respectively. This year's total exports to Mexico (333.2 Bcf) includes 376.5 MMcf of LNG, which was exported via truck, to Nogales, Sonora, and Baja California, Mexico.
- ! The weighted average price of exports to Mexico in 2003 was \$5.36 per MMBtu, which was 62.4 percent higher than last year's average price of \$3.30 per MMBtu, and is the highest annual price on record.
- ! There were no imports from Mexico this year, as compared to 1.7 Bcf in 2002.
- ! **Figure 5** on the following page is a map showing the identity and location of the eleven existing natural gas pipelines enabling cross-border trade between the United States and Mexico. The table included with Figure 5 estimates the daily design capacities in MMcf for all of the pipelines and provides their actual average daily throughput from 1992 through 2003.
- ! Kinder Morgan Energy Partners LP's (KMP) Mier-Monterrey gas pipeline, placed into service on March 20, 2003, serves one of Mexico's fastest growing industrial areas. The 95-mile pipeline interconnects with KMP's Texas intrastate system in Starr County, crosses the border near Roma, Texas, and connects to a 1,000-megawatt power plant complex near Monterrey, Mexico. KMP has entered into a 15-year contract with Pemex for the 375 MMcf per day of capacity. In 2003, 62.3 Bcf of natural gas flowed to Mexico on the Mier-Monterrey pipeline.
- ! On August 1, 2003, Tennessee Gas Pipeline Company's South Texas Expansion Project became operational. The 9.3 mile, 30-inch diameter pipeline connects Tennessee's existing system in Hidalgo County, Texas, to Gasoducto del Rio, a new natural gas pipeline in northern Mexico. The system also includes seven miles of new, 24-inch diameter pipeline loop along Tennessee's Donna Line and a new compressor station. The project was designed to deliver gas to Mexico's Rio Bravo power generation complex. In 2003, 9 Bcf of natural gas flowed to Mexico on the new system at Rio Bravo, Texas.

## Existing Natural Gas Pipeline Interconnects Between the United States and Mexico



Sources: Data derived from quarterly reports filed with Fossil Energy by natural gas exporters and filings before the FERC.

**LNG TRADE**

! **Figure 6** compares imports and exports of liquefied natural gas (LNG) for 2002 and 2003.

! During 2003, seven companies, led by BG LNG Services, Inc. (BG LNG) and Distrigas Corporation (Distrigas), imported 506.5 Bcf of LNG into the United States. As shown in **Figure 6**, total LNG imports in 2003 increased by 277.8 Bcf or almost 122 percent from the 2002 level (506.5 v. 228.7 Bcf). BG LNG, the year's largest importer of LNG, imported 269 Bcf compared to 92.1 Bcf last year. Imports by Distrigas into its Everett, Massachusetts, terminal increased 44.2 percent compared to 2002 (158.3 v. 109.8 Bcf). In addition, 79.2 Bcf of LNG was imported by five other companies this year: BP Energy Company; El Paso Merchant Energy-Gas, L.P.; Shell NA LNG, LLC; Statoil Natural Gas, LLC; and Total Gas & Power North America, Inc.

! **Table 2** on the following page provides a detailed listing of 2003 imports of LNG. During 2003, a total of 204 cargoes of LNG were imported into the United States. Using both long-term and short-term authorizations, Distrigas imported 59 cargoes from Trinidad and Tobago into its Everett, Massachusetts receiving terminal (up from 48 cargoes in 2002). BG LNG, the largest importer at the Lake Charles, Louisiana terminal this year, imported 115 cargoes from six countries. In addition, BG LNG imported 16 cargoes at the Elba Island, Georgia terminal. Nearly all of BG LNG's cargoes were imported using short-term authority, except for 1 cargo imported at the Elba Island facility that was imported under a long-term authorization.



**2003 Imports of Liquefied Natural Gas****Table 2**

<b>Name of Importer</b>	<b>Country of Origin</b>	<b>Number of Cargoes</b>	<b>Receiving Terminal</b>	<b>Volume (Mcf)</b>	<b>Avg. Price (\$/MMBtu)</b>
BG LNG Services	Algeria	19	Lake Charles, LA	50,764,425	\$4.91
BG LNG Services	Malaysia	1	Lake Charles, LA	2,703,846	\$4.53
BG LNG Services	Nigeria	16	Lake Charles, LA	44,703,846	\$4.17
BG LNG Services	Oman	3	Lake Charles, LA	7,540,384	\$3.84
BG LNG Services	Qatar	5	Lake Charles, LA	13,623,077	\$4.43
BG LNG Services	Trinidad	55	Lake Charles, LA	112,446,153	\$4.86
BG LNG Services	Trinidad	16	Elba Island, GA	37,197,115	\$4.87
BP Energy Company	Trinidad	12	Cove Point, MD	32,753,208	\$4.53
BP Energy Company	Trinidad	2	Elba Island, GA	4,913,918	\$4.84
Distrigas Corporation	Trinidad	59	Everett, MA	158,277,253	\$4.19
El Paso Merchant	Trinidad	1	Elba Island, GA	1,816,081	\$5.08
Shell NA LNG	Trinidad	4	Cove Point, MD	11,669,771	\$4.45
Statoil Natural Gas	Algeria	1	Cove Point, MD	2,658,843	\$4.39
Statoil Natural Gas	Trinidad	7	Cove Point, MD	18,995,914	\$4.34
Total Gas & Power	Nigeria	2	Lake Charles, LA	5,363,030	\$4.43
Total Gas & Power	Oman	1	Lake Charles, LA	1,092,098	\$4.49
		<b>204</b>		<b>506,518,962</b>	<b>\$4.50</b>

\* All imports are at "landed cost."

! Other spot market sales at this year include: BP Energy Services (12 cargoes from Trinidad at the newly opened Cove Point, Maryland, facility, and 2 cargoes from Trinidad into the Elba Island terminal); El Paso Merchant (1 cargo from Trinidad at the Elba Island facility); Shell NA LNG (4 cargoes into the Cove Point terminal); Statoil Natural Gas (7 cargoes from Trinidad and 1 cargo from Algeria into Cove Point) and Total Gas & Power (2 cargoes from Nigeria and 1 from Oman into the Lake Charles, Louisiana, facility).

! **Long-term authorizations:** The average landed price of LNG imported from Trinidad in 2003 by Distrigas was \$4.24 per MMBtu, a 40 percent increase over the 2002 price of \$3.04. The average price of BG LNG's cargo from Trinidad under long-term authority was \$6.11 per MMBtu.

- ! **Short-term authorizations:** The average landed prices for imports under short-term arrangements were as follows: BG LNG (\$4.68 per MMBtu); Distrigas (\$4.22 per MMBtu); El Paso Merchant (\$5.08 per MMBtu); Shell (\$4.45 per MMBtu); Statoil (\$4.34 per MMBtu); and Total Gas & Power (\$4.44 per MMBtu).
- ! In addition, EcoElectrica, L.P. imported 15 LNG cargoes totaling 26.2 Bcf from Trinidad for its gas-fired cogeneration plant in Puerto Rico. The LNG was imported under a long-term authorization and had an average price of \$4.00 per MMBtu.
- ! **Table 3** below shows the growth and diversity of countries supplying LNG to the U.S. over the past nine years, and shows the tremendous growth of spot sales in this trade. Since 1995 the percentage of spot sales compared to total LNG imports has grown from 25 percent to over 87 percent. This year's historic growth in LNG imports is directly attributable to a record number of spot cargoes from six countries: Algeria, Malaysia, Nigeria, Oman, Qatar, and Trinidad and Tobago.

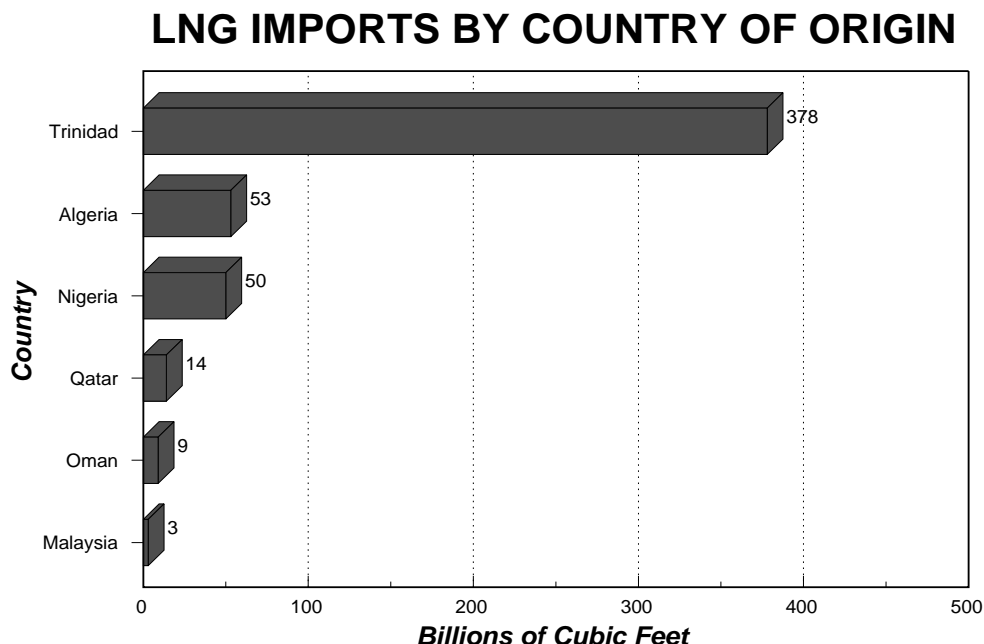
**Table 3**

<b>Spot/Short-Term Sellers of LNG To The United States (Billions of Cubic Feet )</b>									
<b>Country</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>
Algeria	5.1			2.7	10.1	5.7	23.0	23.9	53.4
United Arab Emirates		4.9	2.4	5.3	2.7	2.7			
Australia			9.7	11.6	11.9	5.9	2.4		
Qatar					19.7	46.0	22.8	35.1	13.6
Trinidad and Tobago					13.2	30.3	55.0	94.3	312.2
Malaysia					2.6			2.4	2.7
Nigeria						12.7	38.0	8.1	50.1
Oman						10.0	12.0	3.0	8.6
Indonesia						2.8			
Brunei								2.4	
Total Spot Market Cargoes*	2	3	5	8	27	56	68	83	187
Total LNG Spot Sales	5.1	4.9	12.1	19.6	60.2	116.1	153.2	169.2	440.7
% of Total LNG Imports	28.5	12.2	15.6	22.8	36.8	51.4	64.3	74.0	87.0

\* A small number of spot market cargoes include split cargoes, meaning that a portion of the cargo was imported under a long-term import authorization.

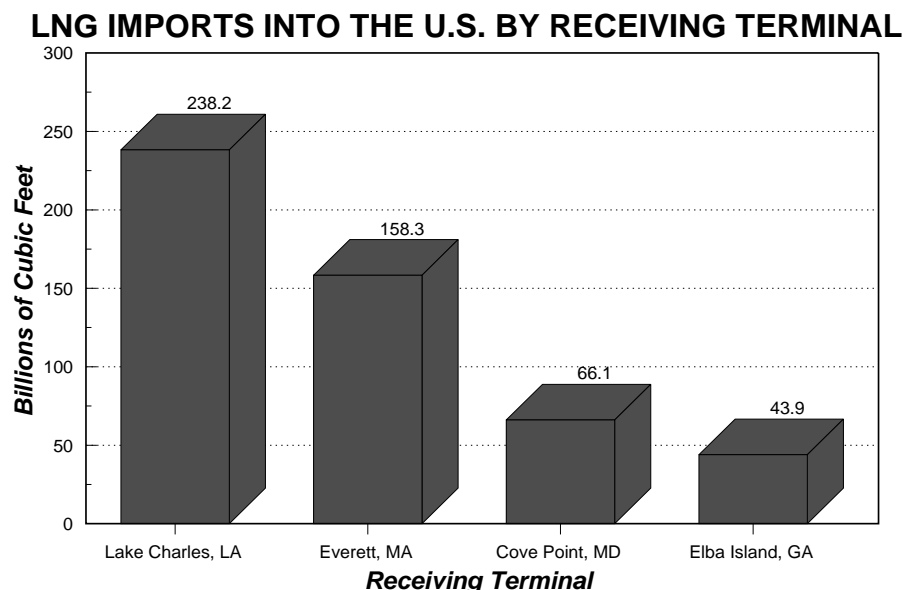
- ! **Figure 7** shows the countries importing natural gas to the U.S. in 2003. Over 75 percent of imports this year were from Trinidad and Tobago. LNG from Trinidad, first imported by Distrigas in 1999, has been the major source of imported supplies since 2000.

**Figure 7**



- ! **Figure 8** shows the volumes of LNG received at the four U.S. receiving terminals. Almost half of the LNG supplies in 2003 arrived at the Lake Charles, Louisiana, facility. The newly opened Cove Point, Maryland, terminal, which was operational only 4 months this year, received over 13% of the total volumes.

**Figure 8**



- ! The record 506.5 Bcf of LNG this year represented 12.6 percent of total natural gas imports, as compared to 5.6 percent in 2002. Long viewed as a small but significant supply source, imported LNG now is considered to be a viable alternative to domestic supplies. According to EIA, natural gas consumption will grow from 22.78 Tcf in 2002 to 30.44 Tcf in 2020, primarily in the electricity generation sector [*Annual Energy Outlook 2004*, Table A13, p.152]. In addition, rising natural gas prices, combined with possible decreasing supplies from traditional sources like Canada, have positioned LNG to become a promising source of energy for the future. Approximately 40 new LNG projects have been announced, and proposals for the construction of numerous receiving terminals are being considered for North America, the Bahamas, and Mexico. In addition, new types of projects, where LNG would be regasified offshore then transported through offshore pipelines to the U.S., are being proposed and evaluated.
- ! On August 25, 2003, the first commercial cargo of LNG in 23 years arrived at Dominion's Cove Point terminal in Lusby, Maryland. Cove Point is the largest of the four U.S. import facilities. The facility, with a daily sendout capacity of 1 Bcf, includes an 87-mile pipeline that connects with three major interstate pipelines in northern Virginia, then flows to major markets in the Mid-Atlantic, in addition to underground storage fields. Currently, the Cove Point facility is undergoing construction for an additional 2.5 Bcf of storage capacity, which is scheduled to be in service in January 2005.
- ! **Figure 6** shows the volume of LNG exported by Phillips Alaska Natural Gas Corporation (Phillips) and Marathon Oil Company (Marathon) from Kenai, Alaska, to Japan during 2002 and 2003.
- ! LNG exports to Japan this year increased 1.6 percent from the 2002 level (64.4 v. 63.4 Bcf). The weighted average delivered price for these volumes in 2002 was \$4.43 per MMBtu, which represents a 10 percent increase over the 2002 price of \$4.03.
- ! LNG volumes totaling 376.5 MMcf were exported to Nogales, Sonora, Mexico, and Baja California, Mexico, via truck, this year.

**Note:** Data used in this report are from company filings made with the Office of Fossil Energy (FE). All 2002/2003 year-to-year comparisons utilize FE data. One should be mindful of the fact that FE data is collected on an equity (sales) basis, rather than on a custody (physical movements) basis, as employed by the Energy Information Administration (EIA) in its reports. As a consequence, the data may have some minor variances.